

SCHIZOCARDIA BELIZENSIS: A SPECIES OF PURDIAEA  
(CYRILLACEAE) FROM CENTRAL AMERICA

JOAB L. THOMAS

ABOUT THIRTY YEARS AGO specimens of an unusual and very distinctive tree were collected in British Honduras by William A. Schipp and sent to the Field Museum of Natural History. It soon became evident that this tree was unknown in the Central American flora, and the specimens were eventually distributed under a provisional name as a new genus and species, *Schizocardia belizensis*, without any indication of relationship. Later, Smith and Standley (1932) described the plant under this name as representing a second genus in the Clethraceae, a relationship suggested by the collector.

Recently, Dr. C. E. Wood suggested that I look at specimens of *Schizocardia*, indicating that the plant resembled members of the Cyrillaceae. Examination of these specimens revealed that this plant fits well within the logical generic limits of *Purdiaea*, in the Cyrillaceae, and that it should be transferred to that genus.

***Purdiaea belizensis*** (Smith & Standley) Thomas, comb. nov.

*Schizocardia belizensis* Smith & Standley, Trop. Woods 32: 9. 1932.

DISTRIBUTION. **British Honduras.** Dist. Stann Creek: Nineteen Mile, Stann Creek Valley, *W. A. Schipp* 965 (type, F; isotypes, A, GH); near Middlesex *W. A. Schipp* 443 (A, F); Silk Grass Creek Reserve, *P. H. Gentle* 2987 (A); Cockscomb Branch, *D. Stevenson* 4 (F); Temax-Sarstoon, *N. S. Stevenson* 164 (F). **Guatemala.** Dept. El Petén: northeast of Poptún, *F. B. Lamb* 96 (F).

Characteristics of this plant which place it in the genus *Purdiaea* and exclude it from the Clethraceae are as follows: a greatly exaggerated quincuncial type of sepal insertion, with the exterior sepals considerably larger than and completely inclosing the interior sepals; an ovary composed of 5 carpels and 5 locules, with each locule containing a single, pendulous ovule; a single style with an unbranched stigma; and a dry, indehiscent fruit which is usually devoid of seeds. The pollen grains, also, are almost identical in shape, size and structure to those of other species of *Purdiaea*. The Clethraceae, represented by the single genus *Clethra*, is characterized by equal sepals, a 3-carpellate, 3-locular ovary with numerous ovules in each locule, usually a 3-lobed stigma, and a loculicidal capsule with numerous small seeds.

The Cyrillaceae and the Clethraceae have many characteristics in common, however, and of the three genera in the Cyrillaceae, *Purdiaea* appears to be the one most closely related to the Clethraceae. The inclusion of a

species of *Purdiaea* in the Clethraceae is a further indication of the close relationship between these two families.

*Purdiaea belizensis* differs from other members of the genus in having distinctly laciniate sepals and axillary racemes. In all other known species of *Purdiaea* the sepals are entire, and in the specimens which I have examined the inflorescence is a terminal raceme. However, in *Cliftonia monophylla* (Lam.) Britton ex Sarg., of the Cyrillaceae, both terminal and axillary racemes have been observed, and it is not improbable that this situation also obtains in some species of *Purdiaea*.

The present species is very distinct, and its relationships with other species of *Purdiaea* are obscure. It seems to be most closely related to the South American *P. nutans* Planch., particularly on the basis of its scarious sepals and leaves with uniformly pinnate venation. The latter character was previously thought to occur in *Purdiaea nutans* only (Thomas, 1960). In size and shape of the leaves and the sepals and in general aspect *Purdiaea belizensis* also resembles *P. nipensis* Marie-Vict. & Leon. The latter species seems to be the nearest connecting link between *P. cubensis* (A. Rich.) Urb., of Pinar del Río, and the other Cuban species of *Purdiaea*, all of which are restricted to Oriente Province. Thus, in some respects the present species is intermediate between two groups of species, with *P. nutans* and *P. cubensis* forming one group, and the species in Oriente Province forming the other (*loc. cit.*, p. 45, fig. 23).

The recognition of a species of *Purdiaea* in British Honduras and Guatemala is particularly interesting in terms of the geographical distribution and relationships within the genus. Previously, the genus was known only from Cuba and northern South America, and the South American species seemed to be most closely related to the species from Pinar del Río. This seemed backward, at first, in terms of the logical distribution pattern, but the recognition of *Purdiaea belizensis* in Honduras and Guatemala adds further evidence to substantiate this relationship. Thus, *Purdiaea* becomes another of an increasingly large number of plant groups distributed in northern South America, British Honduras and vicinity, and the West Indies.

#### REFERENCES

- SMITH, A. C., and P. C. STANDLEY. *Schizocardia*, a new genus of trees of the family Clethraceae. *Trop. Woods* 32: 8-11. 1932.
- THOMAS, J. L. A monographic study of the Cyrillaceae. *Contr. Gray Herb.* 186: 1-114. 1960.